WO 2005/013029 PCT/IN2003/000265

## **CLAIMS**

- 1. A control circuit for diode based RF circuit comprising atleast one analog commutating device having a plurality of digital control lines, a plurality of selectable poles and at one common pole, the digital control lines being connected to a digital data generator and the selectable poles and at least one common pole being connected to the control terminal(s) of the diode(s) of the RF circuit through a network of resistors of differing values and a potential divider and a power supply or voltage source or a network of potential dividers of differing outputs and a power supply or voltage source, the analog commutating device establishing an internal coupling between the common pole and one of the selectable poles depending upon the digital value generated by the digital data generator and appearing at the digital control lines.
- 2. A control circuit as claimed in claim 1 comprising two analog commutating devices connected in tandem, the digital control lines of the two analog commutating devices being connected to the digital data generator, each of the selectable poles of the two analog commutating devices except one being connected to the control terminal(s) of the diode(s) of the RF circuit through a resistors, the resistors being of differing values and the common pole of the two analog commutating devices being connected to the output of a potential divider comprising a

WO 2005/013029 PCT/IN2003/000265

pair of resistors of differing values connected in series, one of the resistors being connected to the power supply or voltage source and the other being earthed.

- 3. A control circuit as claimed in claim 1 comprising two analog commutating devices connected in tandem, the digital control lines of the two analog commutating devices being connected to the digital data generator, the selectable poles of the two analog commutating devices except one being connected to the outputs of a network of potential dividers each comprising a pair of resistors of differing values connected in series, one of the resistors being connected to the power supply or voltage source and the other being earthed and the common pole of the two analog commutating devices being connected to the control terminal(s) of the diode(s) of the RF circuit.
- 4. A control circuit as claimed in anyone of the claims 1 to 3, where the digital data generator is a four bit data generator.
- 5. A control circuit as claimed in anyone of the claims 1 to 4, wherein each analog commutating device is an analog multiplexer.

WO 2005/013029 PCT/IN2003/000265

6. A control circuit as claimed in claim 5, wherein the analog multiplexer comprises four digital control lines and eight selectable poles.